BOOK REVIEW

The Structure and Chemistry of Solid Surfaces

Edited by Gabor A. Somorjai, *John Wiley & Sons Inc., New York, London, Sydney, Toronto*, 1969 (pp 1573+XXIV), price $ 37.50

The Inorganic Material Research Division of Lawrence Radiation Laboratory organized several symposia on material science during the last couple of years. The International Conference on "The Structure and Chemistry of the Solid Surfaces" held at the University of California, Berkeley during June 17-21, 1968 was the fourth in the series. The total number of papers presented was about 84 and the present book is the photo offset lithographic reproduction of the above papers. The above topic has attained new importance in recent times and hence a co-ordinated approach, both from theoretical and experimental points of view, especially on recent advances in the study of surface structure, chemistry of solid surfaces, nature of adsorbed layers, electronic and atomic structures of clean surface, etc. is no doubt a timely one Numerous experimental results by LEED technique, field ion and field emission microscopy, electron spectroscopy, molecular beam scattering method, ellipsometry, etc were presented at the above Conference. Majority of the papers, however, deals with LEED technique, a very powerful tool, for the study of surface layer of clean single crystals, and also of the adsorbed layers formed by exposure to different environments The authors emphasised not only the importance of the technique but also the pitfalls involved due to the complexities in interpretations of LEED patterns. The theoretical approach mainly concerns with the energetic conditions of surfaces of clean as well as adsorbed layers Some of the papers are quite exhaustive and the length varies from 20-50 pages in a number of cases. One important technique namely HEED method has however been completely left out of the scope of present conference probably due to the paucity of time.

This book will be an asset to anyone interested in the surface structure and its chemistry and must be kept in all libraries. Considering the volume of this book, contributions from so many well-known authors and the quality of reproduction, the price is not high, though it may be well beyond the purse of an individual.

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